

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

Claims 1-3 (Cancelled).

4. (New) A method for correcting positioning errors of a mobile station positioning system in a Code Divisional Multiple Access communication system, the method comprises the steps of:

delaying a PN code transmitted to a mobile station from a base station transceiver subsystem via a repeater, for a +64Chip period or a +64Chip+nChip period in a +64Chip delay element or a +64Chip+nChip delay element;

combining the PN code transmitted to the mobile station from the base station transceiver subsystem via the repeater with a PN code created by delaying the PN code transmitted to the mobile station from the specific base station transceiver subsystem via the repeater for the +64Chip period or the +64Chip+nChip period in a combiner, thereby transmitting the combined PN code to the mobile station;

receiving the PN code of the base station transceiver subsystem and the PN code created by delaying the PN code of the base station transceiver subsystem for the +64Chip period or the +64Chip+nChip period and transmitting the received PN codes to the mobile station positioning system via a mobile communication network, in the mobile station;

analyzing the PN codes received in the mobile system via a mobile positioning center to determine whether the PN code of the base station transceiver system is transmitted to the mobile station via the repeater, in a position determination entity of the mobile station positioning system; and

if it is determined that the PN code of the base station transceiver subsystem is transmitted to the mobile station via the repeater, subtracting a delayed time due to a corresponding repeater previously stored in a database from a time at which the PN code of the base station transceiver subsystem is received in the mobile station via the repeater, to calculate a distance between the base station transceiver subsystem and the mobile station in the position determination entity.

5. (New) The method of claim 4, wherein:

in the step of determining whether the PN code of the base station transceiver subsystem is transmitted to the mobile station via the repeater, if the PN code created by delaying the PN code of the base station transceiver subsystem for the +64Chip period or the +64Chip+nchip period is one of the PN codes received in the mobile system determining that the PN code of the base station transceiver subsystem is transmitted to the mobile station via the repeater.

6. (New) The method of claim 4, wherein:

in the step of calculating the distance between the base station transceiver subsystem and the mobile station, if the PN code created by delaying the PN code of the base station transceiver subsystem for the +64Chip period among the PN

codes received in the mobile station is received at a same time as the PN code of the base station transceiver subsystem, delayed time due to a corresponding repeater previously stored in the DB is subtracted in the portion determination entity from a time at which the PN code of the base station transceiver subsystem is received in the mobile station via the repeater, to calculate a distance between the base station transceiver subsystem and the mobile station.

7. (New) The method of claim 5, wherein:

in the step of calculating the distance between the base station transceiver subsystem and the mobile station, if the PN code created by delaying the PN code of the base station transceiver subsystem for the +64Chip period among the PN codes received in the mobile station is received at a same time as the PN code of the base station transceiver subsystem, delayed time due to a corresponding repeater previously stored in the DB is subtracted in the portion determination entity from a time at which the PN code of the base station transceiver subsystem is received in the mobile station via the repeater, to calculate a distance between the base station transceiver subsystem and the mobile station.

8. (New) The method of claim 4, wherein in the step of calculating the distance between the base station transceiver subsystem and the mobile station, if the PN code created by delaying the PN code of the base station transceiver subsystem for the +64Chip+nchip period among the PN codes received in the mobile station is received later than the PN code of the base station transceiver

subsystem as long as the $+n\text{chip}$ period, the delayed time due to the corresponding repeater itself previously stored in the database is subtracted in the portion determination entity from time at which the PN code of the base station transceiver subsystem is received in the mobile station via the repeater, to calculate a distance between the base station transceiver subsystem and the mobile station mobile station positioned in the floor of a building.

9. (New) The method of claim 5, wherein in the step of calculating the distance between the base station transceiver subsystem and the mobile station, if the PN code created by delaying the PN code of the base station transceiver subsystem for the $+64\text{Chip}+n\text{chip}$ period among the PN codes received in the mobile station is received later than the PN code of the base station transceiver subsystem as long as the $+n\text{chip}$ period, the delayed time due to the corresponding repeater itself previously stored in the database is subtracted in the portion determination entity from time at which the PN code of the base station transceiver subsystem is received in the mobile station via the repeater, to calculate a distance between the base station transceiver subsystem and the mobile station mobile station positioned in the floor of a building.